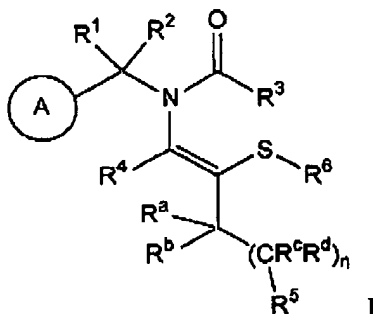


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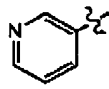
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Claim Amendments.

1. (currently amended): A compound of formula I:



or a pharmaceutically acceptable salt, ester, salt of an ester, stereoisomer, enantiomer, isotope, or tautomer thereof, wherein:



ring A is optionally substituted and is

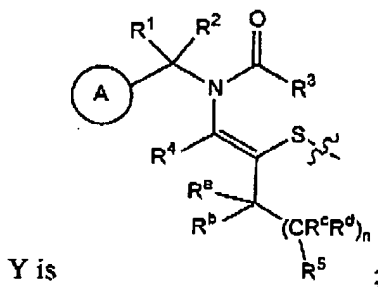
each R^1 and R^2 is independently H, alkyl, or fluoroalkyl;

R^3 is H, alkyl, fluoroalkyl, aralkyl, carbocyclalkyl, heterocyclalkyl, carbocyclalkyl, heterocyclalkyl, aryl, heteroaryl, heteroaralkyl, $-C(O)R$, $-OR$, $-(CH_2)_{1-6}OR$, $-(CH_2)_{1-6}N(R)_2$, $-N(R)_2$, or $-C(H)(OR)R$;

R^4 is H, alkyl, fluoroalkyl, $-CO_2R$, $-CON(R)_2$, carbocyclalkyl, carbocyclalkyl, heteroaryl, or heterocyclalkyl;

R^5 is $-OR^7$ or $-NR^8R^9$;

R^6 is $-C(O)R$, $-C(S)R$, $-C=C-C(O)R$, $-SR$, $-S-W-OR^7$, or Y;



Y is

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R^7 is R° , $-C(O)R$, $-C(O)N(R)_2$, $-C(O)OR$, $-(CH_2)_{1-6}-C(O)R$, $-PO_3M_x$,
 $-P(O)(alkyl)OM'$, $-(PO_3)_2M_y$, carbocyclyl, aryl, heterocyclyl, heteroaryl,
carbocyclylalkyl, aralkyl, heterocyclylalkyl, or heteroaralkyl;

x is 1 or 2;

y is 1, 2 or 3;

each M is independently H, Li, Na, K, Mg, Ca, Mn, Co, Ni, Zn, or alkyl;

M' is H, Li, Na, K, or alkyl;

R^8 is H or alkyl;

R^9 is H, alkyl, $-C(O)R$, $-C(O)N(R)_2$, $-C(O)OR$, $-SO_2R$, $-SO_2N(R)_2$, carbocyclyl,
aryl, heterocyclyl, heteroaryl, carbocyclylalkyl, aralkyl, heterocyclylalkyl, or
heteroaralkyl;

each R^a and R^b is independently H, OR° , alkyl, or fluoroalkyl;

each R^c and R^d is independently H, alkyl, or fluoroalkyl;

n is 0-4;

W is alkylene, arylene, heteroarylene, carbocyclylene, or heterocyclylene;

R° is H or alkyl; and

R is R° , carbocyclyl, aryl, heterocyclyl, heteroaryl, carbocyclylalkyl, aralkyl,
heterocyclylalkyl, or heteroaralkyl.

2. (previously presented) The compound of claim 1, wherein R^6 is Y or -SR.

3. (cancelled).

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4. (previously presented) The compound of claim 1, wherein:

- i) R^1 , R^2 and R^4 are independently H, C_{1-6} alkyl or fluoro(C_{1-6} alkyl);
- ii) R^3 is H, alkyl, fluoroalkyl, $-(CH_2)_{1-6}OR$, $-(CH_2)_{1-6}N(R)_2$, $-C(O)R$, $-C(H)(OR)R$, aralkyl, heterocyclyl, heterocyclalkyl, heteroaryl, or heteroaralkyl;
- iii) R^6 is $-C=C-C(O)R$, $-SR$, $-S-W-OR^7$, or Y;
- iv) R^7 is H, alkyl, $-C(O)R$, $-PO_3M_x$, $-(PO_3)_2M_y$, $-P(O)(alkyl)OM^t$, $-C(O)N(R)_2$, or $-C(O)OR$; or R^9 is H, alkyl, $-C(O)R$, $-C(O)N(R)_2$, $-C(O)OR$, $-SO_2R$, 5-membered heterocyclyl, or a 5-membered heteroaralkyl; and
- v) n is 1.

5. (previously presented) The compound of claim 4, wherein R is R^0 , carbocyclyl, aryl, heteroaryl, heterocyclyl, aralkyl, heterocyclalkyl or heteroaralkyl.

6. (previously presented) The compound of claim 5, wherein R^0 is H or C_{1-6} alkyl optionally substituted with halo, hydroxy or amino.

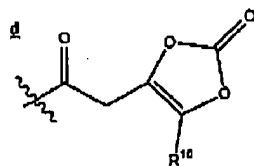
7. (previously presented) The compound of claim 4, wherein:

- i) ring A is optionally substituted with $-NH_2$, alkyl, $-OC(O)R^\dagger$, halo, $-OR^\dagger$, $-CF_3$, $-OCF_3$, $-SCF_3$, $-SR^\dagger$, $-R^\dagger$, $-NR^\dagger C(O)R^\dagger$, $-CO_2R^\dagger$, $-NO_2$, $-N(R^\dagger)_2$, $-CN$, $-C(O)R^\dagger$, $-C(O)N(R^\dagger)_2$, $-SO_2N(R^\dagger)_2$, $-NR^\dagger CO_2R^\dagger$, $-C(O)C(O)R^\dagger$, $-OC(O)N(R^\dagger)_2$, $-S(O)_2R^\dagger$, $-C(O)CH_2C(O)R^\dagger$, $-NR^\dagger SO_2R^\dagger$, or $-C(=S)N(R^\dagger)_2$; and R^\dagger is 3-6 membered unsubstituted cycloalkyl, phenyl, benzyl, naphthyl, pyridyl, or C_{1-6} alkyl optionally substituted with halo;
- ii) R^3 is H, C_{1-6} alkyl, $-(CH_2)_{1-6}OR^0$ or $-CH(OR^0)R^0$;
- iii) R^6 is $-C=C-C(O)R$, $-SR$, $-S-W-OR^7$ or Y; and
- iv) R^8 is H or C_{1-6} unsubstituted alkyl.

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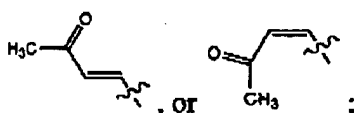
8. (currently amended) The compound of claim 7, wherein R^7 or R^9 is H, a polysaccharide, or



, wherein R^{10} is H, alkyl, or aryl.

9. (currently amended) The compound of claim 7, wherein:

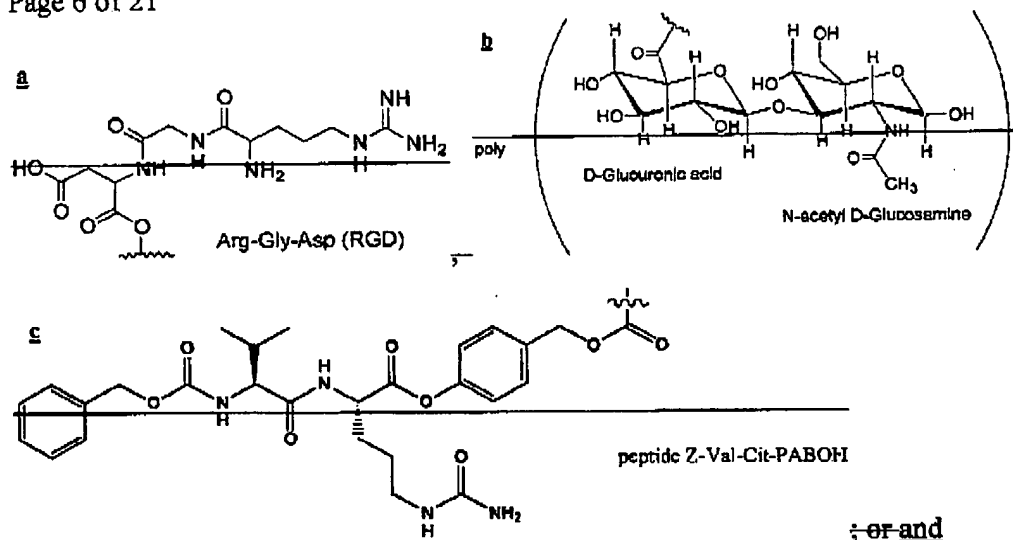
- i) R^1 , R^2 and R^4 are independently H, methyl, ethyl, $-\text{CH}_2\text{F}$, $-\text{CHF}_2$, or $-\text{CF}_3$;
- ii) R^3 is H, methyl, ethyl, $-\text{CH}(\text{OH})\text{CH}_3$, $-\text{CH}_2\text{OH}$, or $-\text{CH}_2\text{CH}_2\text{OH}$;
- iii) R^6 is $-\text{S}-(\text{heterocyclalkyl})$, $(-\text{S}-(\text{unsubstituted C}_{1-6} \text{ alkyl}), \text{Y}$,



- iv) R^8 is H, methyl, or ethyl; and
- v) R^7 is H, methyl, ethyl, $-\text{C}(\text{O})\text{Me}$, $-\text{C}(\text{O})\text{Et}$, $-\text{C}(\text{O})\text{NMe}_2$, $-\text{C}(\text{O})\text{-p-OMe-phenyl}$, $-\text{C}(\text{O})\text{O-phenyl}$, $-\text{PO}_3\text{H}_2$, $-\text{P}(\text{O})(\text{OMe})_2$, $-\text{P}(\text{O})(\text{OMe})\text{OH}$, $-\text{P}(\text{O})(\text{Me})\text{OH}$, or $-\text{P}(\text{O})(\text{OH})\text{OP}(\text{O})(\text{OH})(\text{OH})$, or R^{11} ; and R^{11} is selected from the group consisting of:

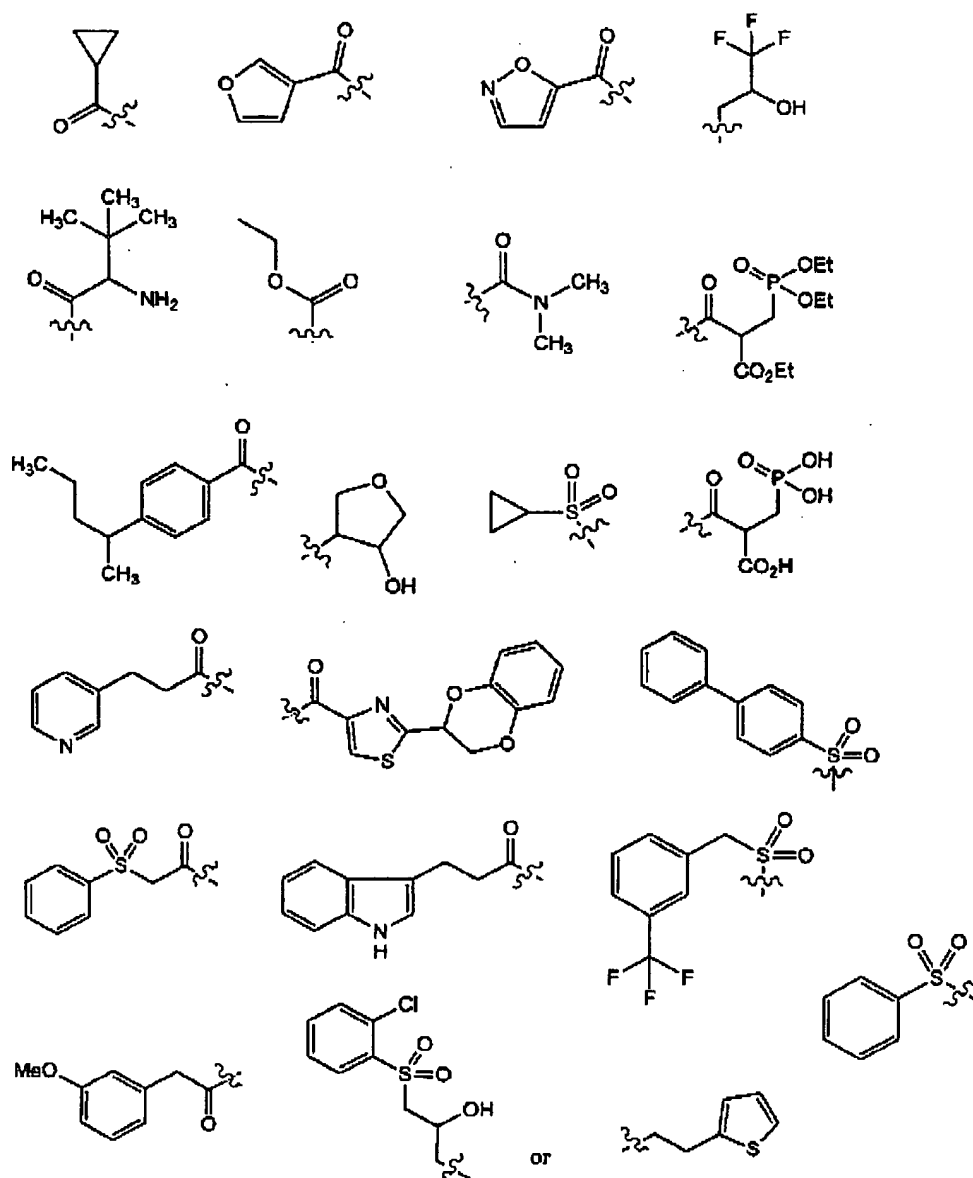
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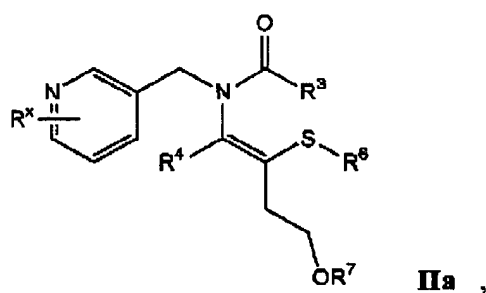


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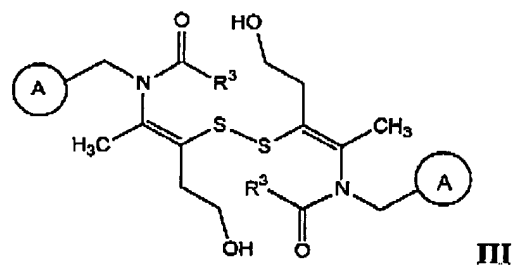
10. (currently amended) The compound of claim 1, wherein said compound is selected from the group consisting of the compounds of:

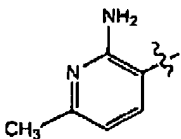
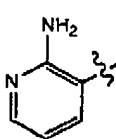
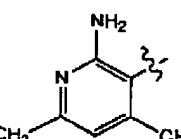
(1) formula **IIa**;



where R^3 and R^4 are independently H or alkyl, R^6 is $-SR$, R^7 is R^o , and R^x can be the same or different and is selected from the group consisting of alkyl and NH_2 ;

(2) formulae **III**:



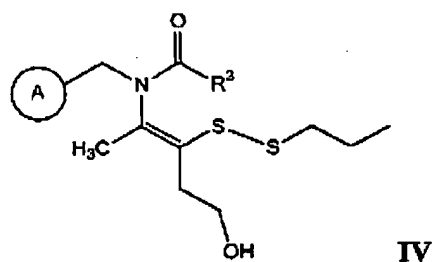
where A is , , or , and R^3 is H or CH_3 ;

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and

(3) formulae IV :



where A is , or , and R³ is H or CH₃.

11. (previously presented) A pharmaceutical composition comprising a compound of claim 1 and a pharmaceutically acceptable carrier.

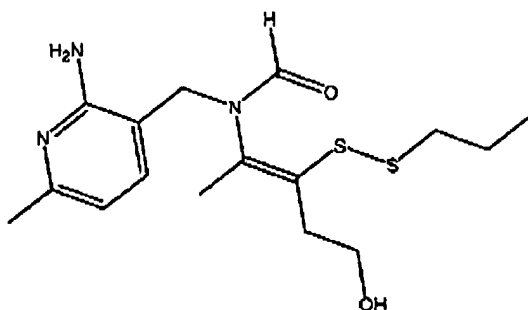
12.-22. (cancelled).

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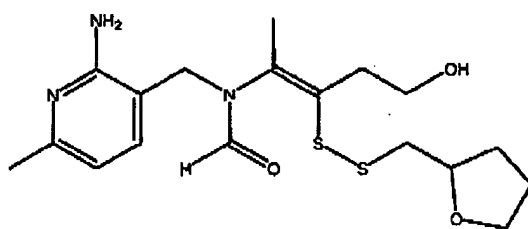
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23. (currently amended) A compound of the formula:

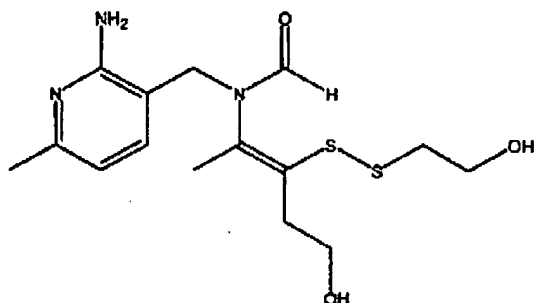
(a)



(b)



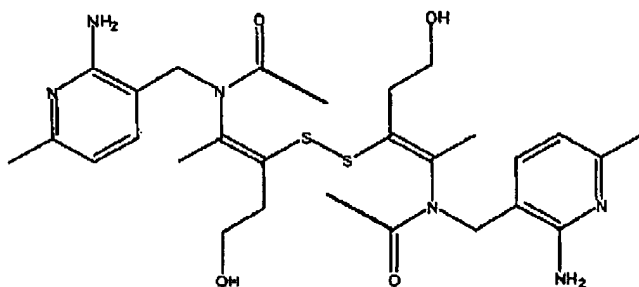
(c)



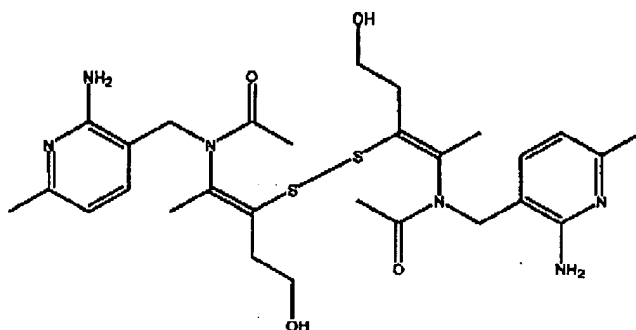
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(d)



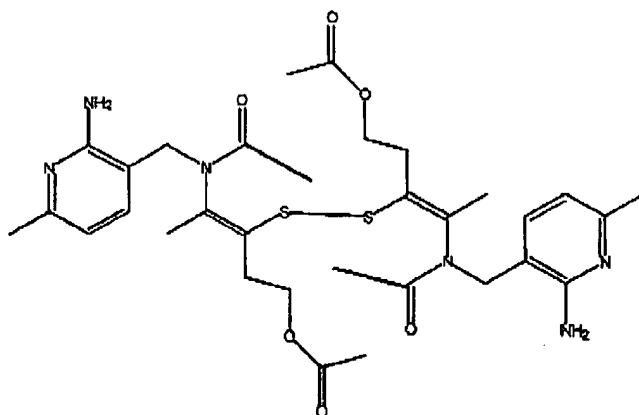
(e)



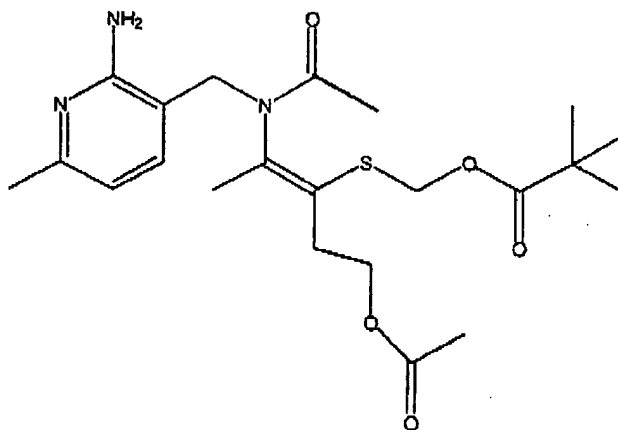
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(f)



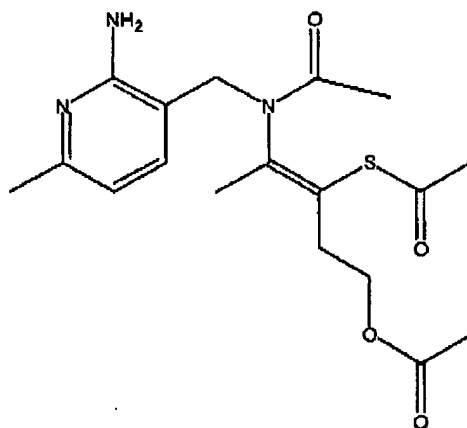
(g)



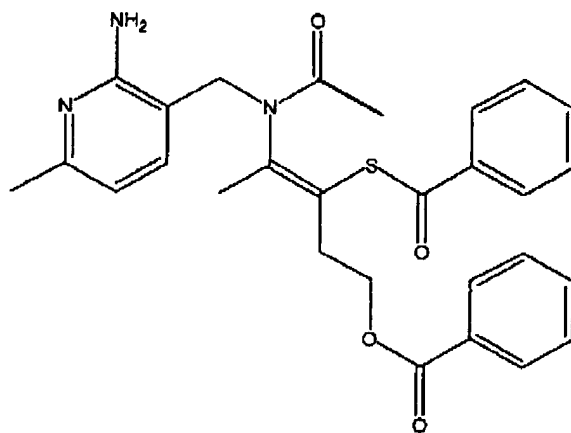
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(h)



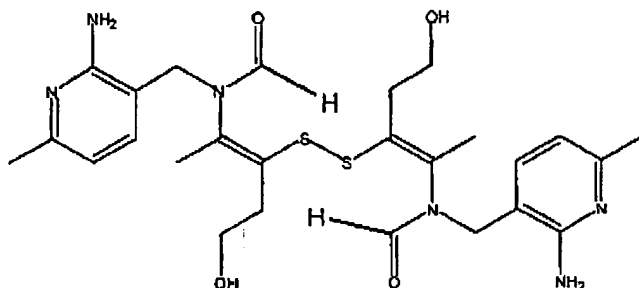
(i)



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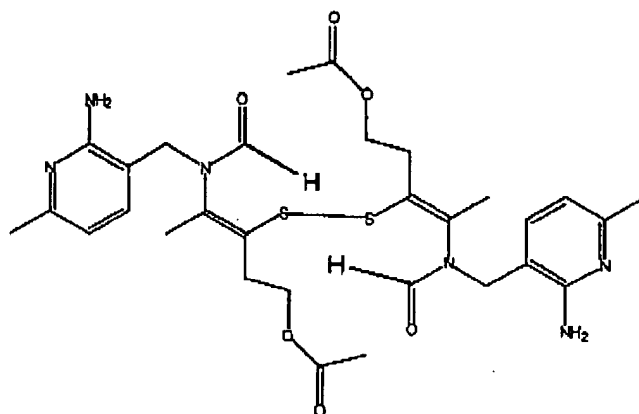
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(j)



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(k)

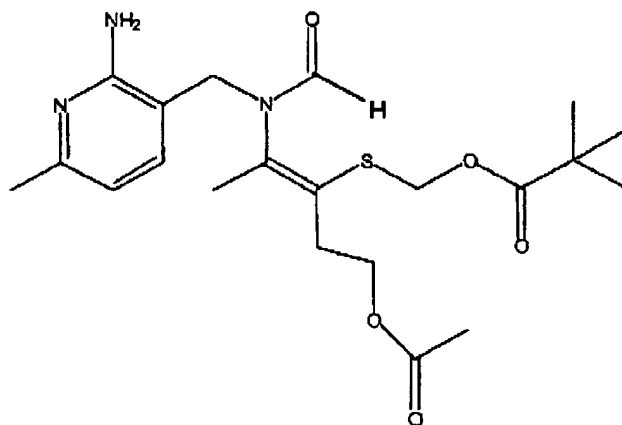


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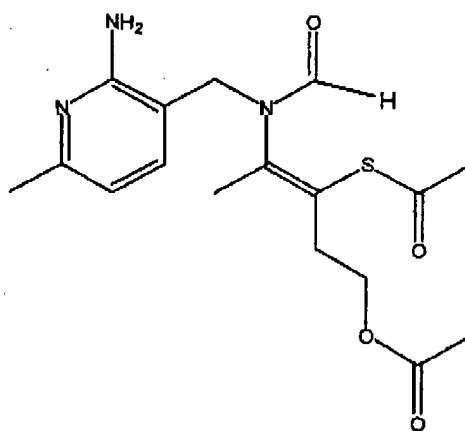
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(l)



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(m)

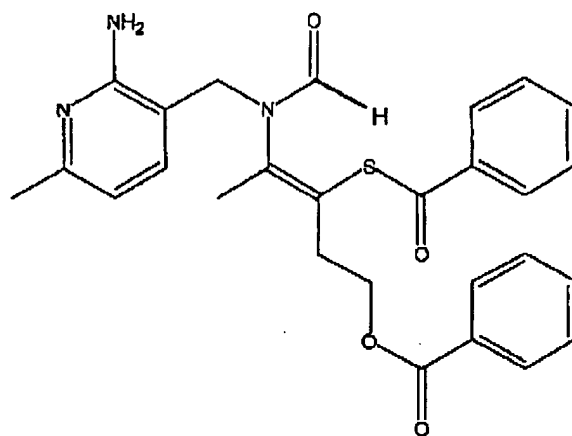


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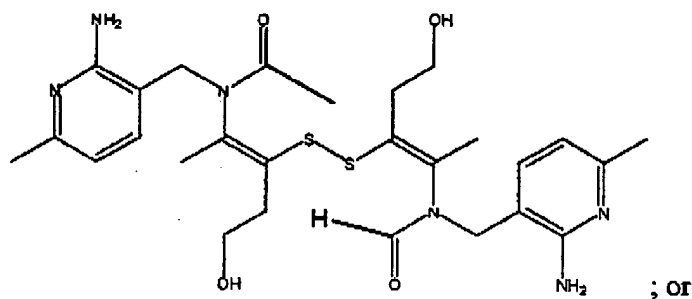
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(n)



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(o)

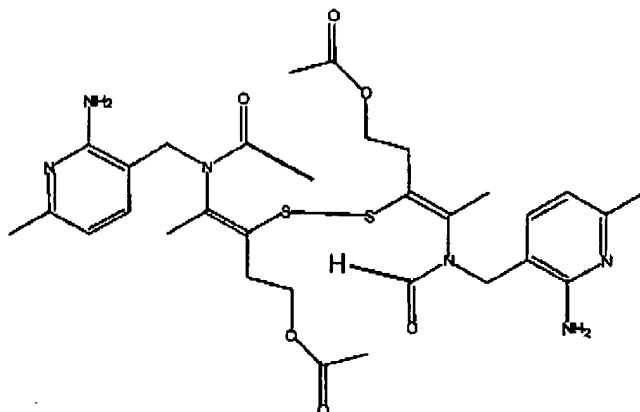


; or

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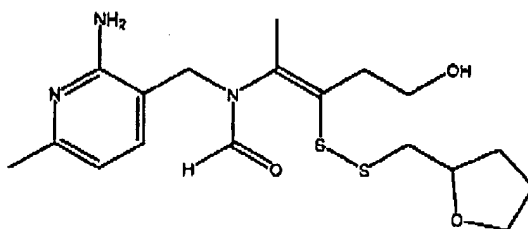
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(p)



or a pharmaceutically acceptable salt, ester, salt of an ester, stereoisomer, enantiomer, isotope, or tautomer thereof.

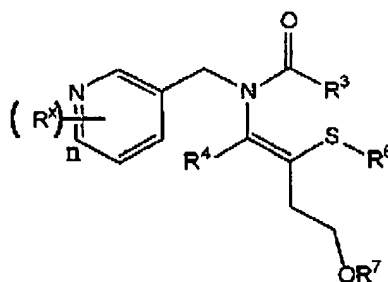
24. (previously presented) The compound of claim 23, wherein the compound is:



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25. (currently amended) A compound of the formula



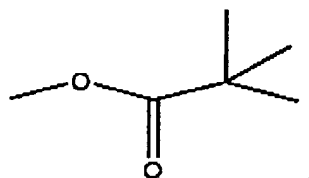
or a pharmaceutically acceptable salt, ester, salt of an ester, stereoisomer, enantiomer, isotope, or tautomer thereof, wherein:

(a) R^3 and R^4 may each be the same or different to the extent they occur more than once in the compound and are independently H or alkyl;

(b) R^7 may be the same or different to the extent it occurs more than once in the compound and is independently R^o or $-C(O)R$, where R^o is H or alkyl and R is R^o , carbocyclyl, aryl, heterocyclyl, heteroaryl, carbocyclylalkyl, aralkyl, heterocyclylalkyl, or heteroaralkyl;

(c) R^x may be the same or different to the extent it occurs more than once in the compound and is independently alkyl or NH_2 ;

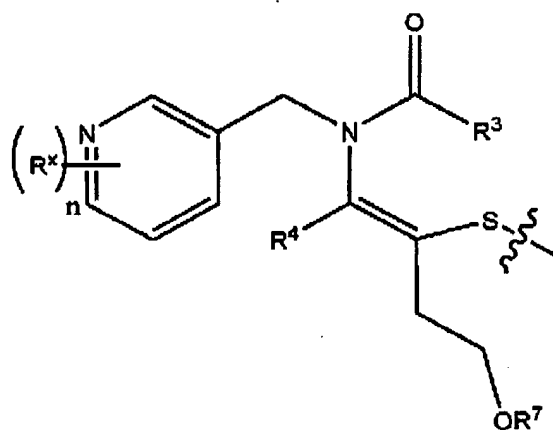
(d) R^6 is $-SR$, $-C(O)R$,



or

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; and

(e) n is 0, 1, 2, or 3.